

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) ~~A~~ ~~An electro-kinetic device ("EKD") for use in a procedure for electroporation of cells of a selected tissue to facilitate the introduction of macromolecules,~~
comprising:

an electrode assembly having a plurality of needle electrodes for penetrating a
~~the~~ selected tissue;

a current waveform generator in electrical communication with the plurality of
needle electrodes ~~for applying a constant current pulse pattern between any plurality~~
~~of electrodes;~~

a power source in electrical communication with the current waveform
generator; and

a controller in communication with the current waveform generator and the
power source, wherein the controller manages the electroporation procedure and
applies electrical energy to the plurality of needle electrodes for a time and under
conditions effective to expose adjacent tissue to a substantially constant electrical
current.

2. (Currently Amended) The ~~electro-kinetic device ("EKD")~~ of claim 1, further
comprising a waveform logger in communication with the controller ~~for sampling and~~
~~recording electroporation data related to the constant current pulse pattern.~~

3. (Currently Amended) The ~~electro-kinetic device ("EKD")~~ of claim 1, further
comprising an impedance tester in electrical communication with the plurality of needle
electrodes ~~for determining resistance.~~

4. (Currently Amended) The ~~electro-kinetic device ("EKD")~~ of claim 1, further
comprising an input device for inputting commands into the controller.

5. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 4, wherein the input device is a keypad.
6. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 1, further comprising a status-reporting device for reporting status information during the electroporation procedure.
7. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 6, wherein the status-reporting device is an information display panel, an audible notification, a light-emitting diode ("LED"), or a combination thereof.
8. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 1, further comprising a communications port in communication with the controller ~~for transmitting electroporation data related to the constant current pulse pattern to external electronic devices.~~
9. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 8, wherein the communications port is an optical serial communications port.
10. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 8, wherein the communications port is an infrared port.
11. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 1, further comprising memory in communication with the controller ~~for storing the electroporation data related to the constant current pulse pattern.~~
12. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 11, wherein the memory is non-volatile.
13. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 1, wherein the power source is a battery.

14. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 1, wherein the electrode assembly further comprises a handle to which ~~having a mount structure for fastening~~ the plurality of needle electrodes are fastened ~~to the handle~~.

15. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 14, wherein the electrode assembly further comprises an activation switch mounted on the handle and in communication with the controller.

16. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 1, wherein the electrode assembly further comprises a status-reporting device for reporting the status of the electroporation procedure.

17. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 16, wherein the status-reporting device is a light-emitting diode ("LED").

18. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 1, wherein the plurality of needle electrodes ~~is in~~ defines a circular array.

19. (Currently Amended) The ~~electro-kinetic~~ device ("~~EKD~~") of claim 18, wherein the circular array is about 1.0 cm in diameter.

20-26. (Canceled)

27. (Currently Amended) A method for electroporating cells of a selected tissue to facilitate the introduction of macromolecules, comprising:

inserting a plurality of needle electrodes having a central channel into the selected tissue;

measuring the resistance of the plurality of needle electrodes to determine if a circuit can safely be established through the selected tissue;

injecting a solution of the macromolecules by passing a needle through the central channel of the plurality of needle electrodes;
generating electrical energy ~~a constant current pulse pattern between any plurality of electrodes~~ using a software-based application;
applying ~~the constant current pulse pattern~~ the electrical energy to the plurality of needle electrodes for a time and under conditions effective to expose adjacent tissue to a substantially constant electrical current. ; and
~~electronically recording data related to the constant current pulse pattern.~~

28. (New) The method of claim 27, further comprising electronically recording data related to the electroporation.